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## EUROPEAN PATENT APPLICATION

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㉕ **Composite magnetic head.**

㉖ The head has a bulk head (11) for recording/reproducing an analog signal and a thin film magnetic head (4,5) for recording/reproducing a digital signal arranged adjacent to each other in a traveling width of a magnetic tape to be integrated. Because of this structure, it is possible to approximately double the number of thin film magnetic

heads taken per wafer, whereby productivity is improved. Since bulk head (11) is used for recording/reproducing an analog signal, it is possible to reduce a manufacturing cost. It is also possible to avoid a problem of generation of a noise peculiar to the case where an analog signal is recorded/reproduced by the thin film magnetic head.

FIG.1A

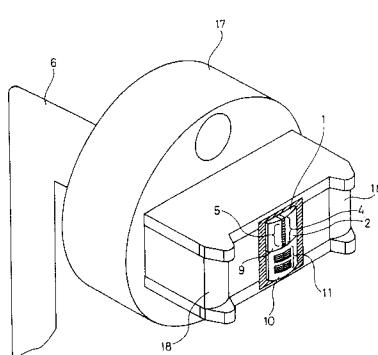
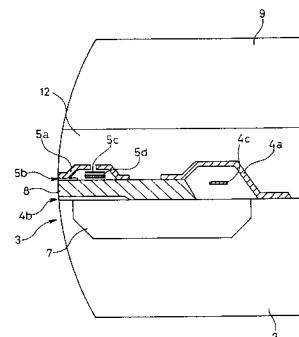


FIG.1B



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EUROPEAN SEARCH REPORT

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EP 93 11 2061

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
X	EP-A-0 381 266 (PHILIPS' GLOEILAMPENFABRIEKEN N.V. ) * column 9, line 1 - line 19 * * column 9, line 39 - line 41 * * column 10, line 11 - line 56; figures 5,6,8A,8B * ---	1	G11B5/39 G11B5/48 G11B5/105
A	IBM TECHNICAL DISCLOSURE BULLETIN, vol. 30, no. 5, October 1987 ARMONK, N.Y., US, pages 85-86, 'Hybrid read/write/erase head' * the whole document *	1-3,5	
A	PATENT ABSTRACTS OF JAPAN vol. 10 no. 180 (P-471) [2236] ,24 June 1986 & JP-A-61 029410 (CANON INC) 10 February 1986, * abstract *	1,2,5	
A	PATENT ABSTRACTS OF JAPAN vol. 6 no. 229 (P-155) ,16 November 1982 & JP-A-57 130224 (SONY K. K.) 12 August 1982, * abstract *		TECHNICAL FIELDS SEARCHED (Int.Cl.5) G11B
P,X P,A	EP-A-0 519 182 (SHARP K. K.) * page 3, line 27 - line 55 * * page 7, line 51 - line 54; figures 4,15 * ---	1,3,5 4	
A	US-A-3 593 414 (BEUN ET AL.) * the whole document *		
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The present search report has been drawn up for all claims			
Place of search THE HAGUE	Date of completion of the search 4 September 1995	Examiner Fux, J	
CATEGORY OF CITED DOCUMENTS	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document		
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)						
A	PATENT ABSTRACTS OF JAPAN vol. 13 no. 37 (P-819) [3385] ,27 January 1989 & JP-A-63 234406 (FUJI PHOTO FILM CO LTD) 29 September 1988, * abstract *								
P,A	PATENT ABSTRACTS OF JAPAN vol. 17 no. 122 (P-1501) ,15 March 1993 & JP-A-04 305808 (SANYO ELECTRIC CO LTD) 28 October 1992, * abstract; figures *	1,3,4							
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			TECHNICAL FIELDS SEARCHED (Int.Cl.5)						
<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of completion of the search</td> <td style="width: 34%;">Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>4 September 1995</td> <td>Fux, J</td> </tr> </table> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>				Place of search	Date of completion of the search	Examiner	THE HAGUE	4 September 1995	Fux, J
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